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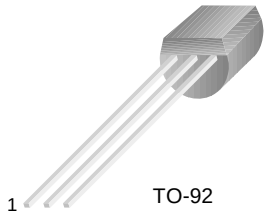
FAIRCHILD
SEMICONDUCTOR TM

Jameco Part Number 178714

KSP55/56

Amplifier Transistor

- Collector-Emitter Voltage: V_{CEO}=KSP55: 60V
  KSP56: 80V
- Collector Dissipation: P_C (max) =625mW
- Complement to KSP05/06



TO-92

1. Emitter 2. Base 3. Collector

PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings T_a=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage		
	: KSP55	-60	V
	: KSP56	-80	V
V_{CEO}	Collector-Emitter Voltage		
	: KSP55	-60	V
	: KSP56	-80	V
V_{CEO}	Emitter-Base Voltage	-4	V
I_C	Collector Current	-500	mA
P_C	Collector Dissipation	625	mW
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 ~ 150	°C

Electrical Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
BV_{CEO}	* Collector-Emitter Breakdown Voltage				
	: KSP55	I_C= -1mA, I_B=0	-60		V
	: KSP56		-80		
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E= -100μA, I_C=0	-4		V
I_{CBO}	Collector Cut-off Current				
	: KSP55	V_{CB}= -60V, I_E=0		-0.1	μA
	: KSP56	V_{CB}= -80V, I_E=0		-0.1	μA
I_{CEO}	Collector Cut-off Current	V_{CE}= -60V, I_B=0		-0.1	μA
h_{FE}	DC Current Gain	V_{CE}= -1V, I_C= -10mA	50		
		V_{CE}= -1V, I_C= -100mA	50		
V_{CE} (sat)	Collector-Emitter Saturation Voltage	I_C= -100mA, I_B= -10mA		-0.25	V
V_{BE} (on)	Base-Emitter On Voltage	V_{CE}= -1V, I_C= -100mA		-1.2	V
f_T	Current Gain Bandwidth Product	V_{CE}= -2V, I_C= -10mA f=100MHz	50		MHz

* Pulse Test: PW≤300μs, Duty Cycle≤2%

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Typical Characteristics

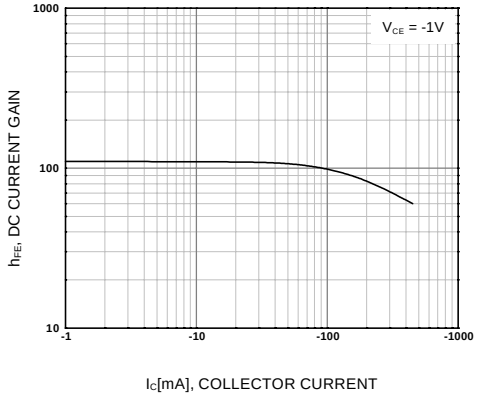

Figure 1. DC current Gain

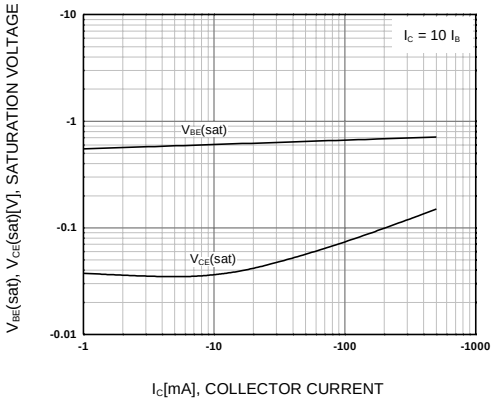

Figure 2. Collector-Emitter Saturation Voltage Base-Emitter Saturation Voltage

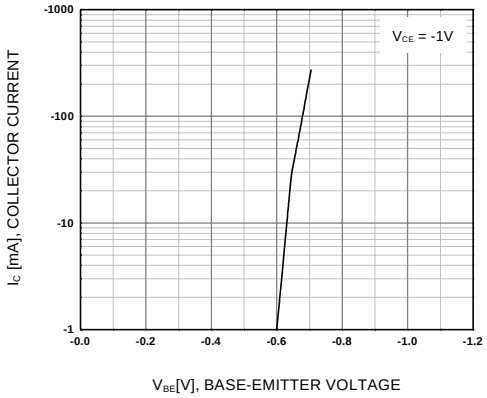

Figure 3. Base-Emitter On Voltage

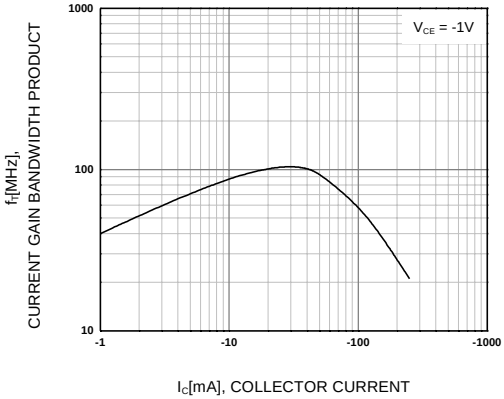

Figure 4. Current Gain Bandwidth Product

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Package Demensions

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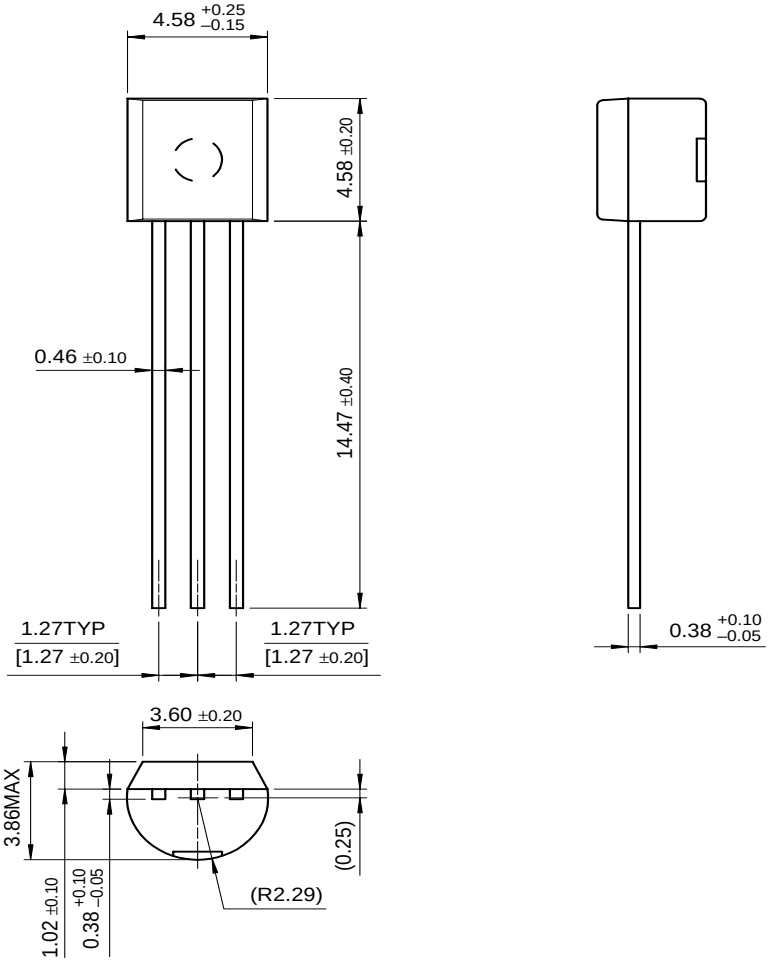

Dimensions in Millimeters

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